Comments

28 Students took the exam (from 31)

Section A - Multiple Choice

Students performed very well on this section in general. The mean was 71% and SD was 25%.

Q.5 was the only one where a widespread mistake seemed to be made among students who scored well overall. This was due to students not reading that the question concerned MINIMIZATION in a branch and bound algorithm. 21% of students gave the correct answer for a MAXIMIZATION problem.

Section B - Long Answer (choose 2 from 4)

Question 21 on Simulated Annealing.
Many students chose this. Marks were generally in the 60% range. Good answers for describing the simulated annealing were given, but a number of mistakes were made in the design of the representation, the objective function and the assumptions in tackling the timetabling problem.

Question 22 on Multiobjective Optimization
This was not so popular - fewer than 50% chose it. Marks were middling, with some very good ones. A common mistake was not ranking the solutions correctly by nondominated ranking; the other one was that for the exclusive hypervolume question, where an opinion was requested, some tried to calculate the answer by hand using an incorrect method. Finally, many people were unable to get full marks on the question concerning tournament selection; this was due to an inability to apply basic rules of probability correctly.

Question 23 on Branch and Bound
This was moderately popular. On the whole, the tendency was to score 50% or less, however one or two very good answers were seen too. The common mistake was not to explain the representation properly (to confuse data given with free variables) and not to specify the bound procedure in sufficient detail.

Question 24 on Dynamic Programming
For the first part, most could explain why DP would be a good solution to this problem, but also lost some marks due to a lack of detailed justification.

For the second part, answers were more varied. Some students did not give an explicit objective or recurrence or constraints and this meant their mark was low. Others gave a good full attempt and scored most of the marks.